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Choose and complete ONE of the following problems: Graded out of 10 points; beyond that is extra credit. If you attempt multiple problems make it clear which one you want graded; failure to do so will result in only the lowest score being graded.

1) Given that $x^{2}+y^{2}=1$, find $\frac{d y}{d x}$. (10 points)
2) Given that $x^{3}+y^{3}=5 x$, find $\frac{d y}{d x}$. (12 points)
3) Given that $x^{4}+y^{4}=x y^{2}$, find $\frac{d y}{d x}$. (14 points)
